Serial Number: 10/564,297

Filing Date: January 10, 2006

Title: METHOD AND DEVICE FOR GENERATING AND DETECTING A FINGERPRINT FUNCTIONING AS A TRIGGER MARKER IN

A MULTIMEDIA SIGNAL

REMARKS

This paper responds to the Office Action dated July 12, 2010. Claims 1, 8, 11, 13 and 21 are presently amended. Claims 5-7 and 15-17 were previously withdrawn and are presently canceled. Claims 22-27 are presently added. As a result, claims 1-4, 8-14, and 18-27 are now pending in this application.

New Claims

Claims 22-27 are new and depend respectively from independent claims 1, 11, and 21. Support for claim elements recited in the new claims is found in Applicants' originally filed specification, for example, at least at page 1, line 13, page 1, lines 16-19, page 2, line 1, page 2, lines 3-6, page 2, lines 10-13, page 4, lines 2-4, page 5, lines 10-12, page 6, lines 23-27, and page 5, lines 10-12, page 6, lines 23-27, and page 9, lines 22-24, and page 10, lines 22-24. Accordingly, Applicants respectfully request that the new claims be entered and considered.

Double Patenting Rejection

Claims 1, 11, 10, 20, 3, 13, 4, 14, 8, 18, and 21 were provisionally rejected on the ground of nonstatutory double patenting over claims 1, 15, 2, 16, 3, 17, 4, 18, 14, 28, and 29 respectively

¹ Specification at 1, line 13, "'connecting' external actions to a piece of video and/or audio content," emphasis added.

² Id. at 1, lines 16-19, "detection of **time points in** a television program, a movie, a music piece, etc., where such additional information is relevant," emphasis added.

³ Id. at 2, line 1, "overlayed on the video <u>at</u> the relevant time instants," emphasis added.

⁴ Id. at 2, lines 3-5, "During a **national** broadcast, **specific parts of the program** may be replaced by a **regional** program in some regions," emphasis added.

Id. at 2, lines 10-13, "to mark or associate specific time instants in the video stream at which additional information should be available. At these time instants[,] the receiver should be triggered to perform or provide some kind of action," emphasis added.

⁶ Id. at 4, lines 2-4, "the time marking detection is time independent as it is dependent on the specific content of the multimedia signal only," emphasis added.

⁷ *Id.* at 5, lines 11-12, "presenting biography data for an actor being shown by the multimedia signal," emphasis added.

⁸ Id. at 6, lines 23-27, "In this way, a given fingerprint (102) is a **trigger marker enabling a very accurate and** very precise location of a given time point of the signal (101) . . . using (a segment of) the signal For video fingerprinting the localization is typically **frame accurate**," emphasis added.

 $^{^{9}}$ Id. at 9, lines 22-24, "fingerprinting module (202) then supplies the computer fingerprint(s) to the database (203) . . . together with the associated **one or more actions** for each fingerprint," emphasis added.

¹⁰ Id. at 10, lines 22-24, "Shown is a table comprising fingerprints (102) . . . and respective associated actions (105) One or more actions (105) are stored for each fingerprint (102)," emphasis added.

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of copending Application 10/566,003. Applicants note the provisional nature of these rejections and will consider filing a Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(b)(iv) should the co-pending application issue prior to issuance of the instant claims herein, to obviate these rejections. Applicants do not admit that any of claims 1, 11, 10, 20, 3, 13, 4, 14, 8, 18, and 21 are obvious in view of co-pending Application 10/566,003.

The Rejection of Claims Under § 101

Claims 11-14 and 18-20 where rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Specifically, the Office Action stated that "Applicant[s] must claim at least one **hardware** component as part of the device of claim 11 to overcome the . . . rejections under 35 USC 101."

Independent claim 11 is presently amended to recite, in part, "a fingerprint module **implemented in hardware**," ¹² as requested in the Office Action. Support for this amendment is found in Applicants' specification, for example, at least at page 10, lines 30-34. ¹³ Moreover, amended claim 11 is directed to statutory subject matter, at least because it recites a machine. Under instructions issued by the USPTO, a machine "includes every mechanical device or a combination of mechanical powers and devices to perform some function and produce a certain effect or result." ¹⁴ A module implemented in hardware constitutes mechanical device. Accordingly, independent claim 11 and its dependent claims 12-14 and 18-20 recite a machine and are therefore directed to statutory subject matter. Thus, Applicants respectfully request that these rejections be reconsidered and withdrawn and that the claims be allowed.

¹¹ Office Action at 5, emphasis added.

¹² Emphasis added.

¹³ Specification, page 10, lines 30-34, "The invention can be implemented by means of **hardware** comprising several distinct elements, and by means of a suitably programmed **computer**," emphasis added.

¹⁴ Interim Examination Instructions for Evaluating Subject Matter Eligibility under 35 U.S.C. § 101, page 5 (August 24, 2009).

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The Rejection of Claims Under § 102

Claims 1-4, 8-14, and 18-21 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Rhoads. To anticipate a claim, a reference must disclose **each and every element** of the claim, ¹⁵ as arranged in the claim, ¹⁶ and in as **complete detail** as in the claim. ¹⁷

Each of independent claims 1, 11, and 21 is presently amended to recite, in part, "each segment of the plurality of segments being identified by one of the plurality of trigger time points and corresponding to specific content to be shown to a user"¹⁸ and "an action that corresponds to the specific content shown [in] the segment of the multimedia signal."¹⁹ Support for these claim elements is found in Applicants' originally filed specification, for example, at least at page 1, line 13,²⁰ page 1, lines 16-19,²¹ page 2, line 1,²² page 2, lines 3-6,²³ page 2, lines 10-13,²⁴ page 4, lines 2-4,²⁵ page 5, lines 10-12,²⁶ page 6, lines 23-27,²⁷ page 9,

¹⁵ "A claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed Cir. 1987), cited in *Ex parte Frye*, Appeal No. 2009-006013 (BPAI 2010) (precedential), emphasis added.

¹⁶ "To establish anticipation, every element and limitation of the claimed invention must be found in a single prior art reference, **arranged as in the claim**." *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383; 58 U.S.P.Q.2d 1286, 1291 (Fed. Cir. 2001), cited in *Ex parte Frye*, Appeal No. 2009-006013 (BPAI 2010) (precedential), emphasis added.

[&]quot;The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989), cited in MPEP § 2131, emphasis added.

¹⁸ Emphasis added.

¹⁹ Emphasis added.

²⁰ Specification at 1, line 13, "**connecting' external <u>actions</u> to a piece of** video and/or audio <u>content</u>," emphasis added

²¹ *Id.* at 1, lines 16-19, "detection of **time points** <u>in</u> a television program, a movie, a music piece, etc., <u>where</u> such additional information is <u>relevant</u>," emphasis added.

²² *Id.* at 2, line 1, "overlayed on the video at the relevant time instants," emphasis added.

²³ *Id.* at 2, lines 3-5, "During a **national** broadcast, **specific parts of the program** may be replaced by a **regional** program in some regions," emphasis added.
²⁴ *Id.* at 2, lines 10-13, "to mark or associate **specific time instants** <u>in</u> the video stream <u>at which</u> additional

²⁴ *Id.* at 2, lines 10-13, "to mark or associate **specific time instants** <u>in</u> the video stream <u>at which</u> additional information should be available. <u>At these time instants</u>[,] the receiver should be triggered to perform or provide some kind of <u>action</u>," emphasis added.

²⁵ *Id.* at 4, lines 2-4, "the time marking detection is time independent as it is **dependent on the <u>specific content</u> of the multimedia signal only**," emphasis added.

²⁶ *Id.* at 5, lines 11-12, "presenting biography data for an actor <u>being shown by</u> the multimedia signal," emphasis added.

²⁷ *Id.* at 6, lines 23-27, "In this way, a given fingerprint (102) is a **trigger marker enabling a very accurate and very precise <u>location</u> of a given time point of the signal (101) . . . using (a <u>segment</u> of) the signal For video fingerprinting the localization is typically frame accurate**," emphasis added.

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lines 22-24. and page 10, lines 22-24. Accordingly, Applicants respectfully request that the amendments be entered and that their recited claim elements be considered.

Applicants respectfully submit that these claim elements are not found in Rhoads. Although paragraph 0027 of Rhoads states that "[o]nce a song has been identified in a database, a number of different responses can be triggered,"30 none of the responses described in Rhoads is an action that corresponds to a specific content to be shown to a user.

Rhoads contains no discussion of specific content to be shown to a user, let alone a segment corresponding to specific content to be shown to the user. Moreover, Rhoads is silent with respect to an action that corresponds to specific content to be shown in the **segment**. Applicants respectfully submit that nothing in the art of record, including Levy, discloses these claim elements.

Because each and every element of independent claims 1, 11, and 21 is not disclosed in the cited reference, as arranged in the claims, and in as complete detail as in the claims, no prima facie case of anticipation is established with respect to the independent claims. For at least these reasons, independent claims 1, 11, and 21, and their respective dependent claims 2-4, 8-10, 12-14, 18-20, , and 22-27 are each patentable over the cited reference. Moreover, the dependent claims may each be patentable based on elements recited therein. Thus, Applicants respectfully request that these rejections be reconsidered and withdrawn and that the claims be allowed.

Moreover, each of new claims 22, 24, and 26 recites, in part, "the action corresponds to the specific content of only the segment among the plurality of segments of the multimedia signal."31 Rhoads makes no mention of an action that corresponds to the specific content of only

²⁸ Id. at 9, lines 22-24, "fingerprinting module (202) then supplies the computer fingerprint(s) to the database (203). . together with the associated one or more actions for each fingerprint," emphasis added.

 $^{^{29}}$ *Id.* at 10, lines 22-24, "Shown is a table comprising fingerprints ($\overline{102}$) . . . and respective associated actions ($\overline{105}$) . . One or more actions (105) are stored <u>for each</u> fingerprint (102)," emphasis added.

³⁰ Rhoads at paragraph 0027, lines 1-2.

³¹ Emphasis added.

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a particular segment of a multimedia signal. Applicants respectfully submit that nothing in the art of record, including Levy, discloses these claim elements.

Furthermore, each of new claims 23, 25, and 27 recites, in part, "the action corresponds to the specific content shown in the segment based on the content being relevant to only the segment among the plurality of segments of the multimedia signal." Rhoads makes no mention of an action that corresponds to the specific content shown in a particular segment of a multimedia signal based on the content being relevant to the particular segment among a plurality of segments of the multimedia signal. Applicants respectfully submit that nothing in the art of record, including Levy, discloses these claim elements.

Because **each and every element** of dependent claims 22-27 is not disclosed in the cited reference, as arranged in the claims, and in as **complete detail** as in the claims, no *prima facie* case of anticipation is established with respect to the independent claims. For at least these reasons, dependent claims 22-27 are each patentable over the cited reference. Thus, Applicants respectfully request that these claims be considered and allowed.

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³² Emphasis added.

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CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (408) 278-4048 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Name

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